

Proton

Quantity	Symbol	Value	Units	Rel.Uncertainty (ppm)
proton mass	m_p	1.6726231(10)	10^{-27}kg	0.59
		1.007276470(12)	u	0.012
in electron volts, $m_p c^2 / \{e\}$		938.27231(28)	MeV	0.30
proton-electron mass ratio	m_p/m_e	1836.152701(37)		0.020
proton-muon mass ratio	m_p/m_μ	8.8802444(13)		0.15
proton specific charge	e/m_p	9.5788309(29)	10^7Ckg^{-1}	0.30
proton molar mass	$M(p), M_p$	1.007276470(12)	10^{-3}kg/mol	0.012
proton Compton wave length, $h/m_p c$	$\lambda_{C,p}$	1.32141002(12)	10^{-15}m	0.089
$\lambda_{C,p}/2\pi$	$\lambda_{C,p}$	2.10308937(19)	10^{-16}m	0.089
proton magnetic moment	μ_p	1.41060761(47)	10^{-26}JT^{-1}	0.34
in Bohr magnetons	μ_p/μ_B	1.52032202(15)	10^{-3}	0.010
in nuclear magnetons	μ_p/μ_N	2.792847386(63)		0.023
diamagnetic shielding correction				
for protons in pure water,				
spherical sample, 25° C, $1 - \mu'_p/\mu_p$	$\sigma_{\text{H}_2\text{O}}$	25.689(15)	10^{-6}	-
shielded proton moment	μ'_p	1.41057138(47)	10^{-26}JT^{-1}	0.34
($\text{H}_2\text{O}, \text{sph.}, 25^\circ \text{C}$)				
in Bohr magnetons	μ'_p/μ_B	1.520993129(17)	10^{-3}	0.011
in nuclear magnetons	μ'_p/μ_N	2.792775642(64)		0.023
proton gyromagnetic ratio	γ_p	26752.2128(81)	$10^4\text{s}^{-1}\text{T}^{-1}$	0.30
	$\gamma_p/2\pi$	42.577469(13)	MHzT^{-1}	0.30
uncorrected ($\text{H}_2\text{O}, \text{shp.}, 25^\circ \text{C}$)	γ'_p	26751.5255(81)	$10^4\text{s}^{-1}\text{T}^{-1}$	0.30
	$\gamma'_p/2\pi$	42.576375(13)	MHzT^{-1}	0.30